



Attorney Docket No. 300.1138

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Mitsutoshi HIGASHI

Application No.: 10/706,912

ATTENTION

Confirmation No.: 7653

CERTIFICATE OF CORRECTION

Filed: November 14, 2003

BRANCH

U.S. Patent No.: 7,456,497

Issued: November 25, 2008

For: ELECTRONIC DEVICES AND ITS PRODUCTION METHODS

**REQUEST FOR CERTIFICATE OF CORRECTION**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Patentee respectfully requests that a Certificate of Correction be issued in the subject patent, pursuant to 35 USC § 254 and 37 CFR § 1.322, to correct the errors shown on the attached Form PTO-1050. For the convenience of the Patent and Trademark Office, attached is a photocopy of an Office Communication with a mailing date of October 18, 2007, on which prior art references cited on Form PTO-892 of that Action and incorrectly not included on the Title page of the subject Issued Patent No. 7,456,497 have been highlighted. With regard to the correction at column 22, Line 4, the same is a result of an inadvertent typographical error --e.g., compare with the use of "MEMS" in the original specification at page 1, lines 1, 17, 18, 19, 21 and 34 and the successive pages, through page 40 lines 1 and 17, et al.. A check in the amount of \$100 to cover the cost of the Certificate is attached.

One or more of the errors shown on the attached Form PTO-1050 is or are within the responsibility of the applicant; each thereof is of a clerical or typographical nature or of minor character and occurred in good faith, and the correction thereof is consistent with the prosecution record.

Respectfully submitted,  
STAAS & HALSEY LLP

Date: Feb. 3, 2009

By: H. J. Staas

H. J. Staas

Registration No. 22,010

02/05/2009 JADD01 00000009 7456497

01 FC:1811

100.00 0P

FEB - 6 2009

1201 New York Ave, N.W., 7th Floor  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO : 7,456,497

DATED : November 25, 2008

INVENTOR(S) : Mitsutoshi HIGASHI

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Title Page, Column1 (Under U.S. PATENT DOCUMENTS), under  
"2005/0167795 A1 \* 8/2005 Higashi ..... 257/678"  
insert

--6,335,224 B1 *	1/2002	Peterson et al. ....	438/114
6,443,179 B1 *	9/2002	Benavides et al. ....	137/454.2
6,500,760 B1 *	12/2002	Peterson et al. ....	438/684
6,489,670 B1 *	12/2002	Peterson et al. ....	257/686
6,495,895 B1 *	12/2002	Peterson et al. ....	257/434
6,531,341 B1 *	3/2003	Peterson et al. ....	438/123
6,538,312 B1 *	3/2003	Peterson et al. ....	257/680
6,548,895 B1 *	4/2003	Benavides et al. ....	257/712
2003/0230798 A1 *	12/2003	Lin et al. ....	257/704
6,661,084 B1 *	12/2003	Peterson et al. ....	257/680
6,674,159 B1 *	1/2004	Peterson et al. ....	257/680
2004/0016995 A1 *	1/2004	Kuo et al. ....	257/678
6,809,413 B1 *	10/2004	Peterson et al. ....	257/680
6,821,819 B1 *	11/2004	Benavides et al. ....	438/122
6,844,623 B1 *	1/2005	Peterson et al. ....	257/723
6,858,943 B1 *	2/2005	Peterson et al. ....	257/784
2005/0046016 A1 *	3/2005	Gilleo ....	257/713
6,953,985 B2 *	10/2005	Lin et al. ....	257/659
6,956,283 B1 *	10/2005	Peterson ....	257/680--.

Column 16, Line 42, change "like." to --like--.

Column 22, Line 4, change "SEMS" to --MEMS--.

MAILING ADDRESS OF SENDER:  
STAAS & HALSEY LLP  
1201 New York Avenue, N.W.  
7th Floor  
Washington, DC 20005

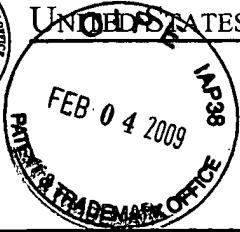
PATENT NO. 7,456,497No. of add'l copies  
@ 304 per page

=&gt;

FEB - 6 2009



## UNITED STATES PATENT AND TRADEMARK OFFICE



Response Due: 1-18-08

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

**COPY**

CPF

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,912	11/14/2003	Mitsutoshi Higashi	300.1138	7653

21171 7590 10/18/2007  
STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
----------

SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
----------	--------------

2813

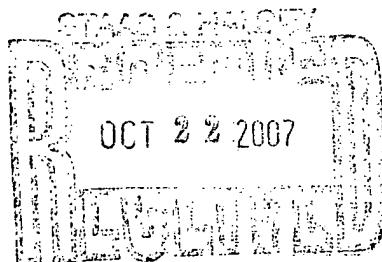
MAIL DATE	DELIVERY MODE
-----------	---------------

10/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**COPIES OF REFERENCES ORDERED**

FEB - 6 2009

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/706,912	HIGASHI, MITSUTOSHI
	Examiner Laura M. Schillinger	Art Unit 2813

COPY

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 August 2007.
- 2a) This action is FINAL.                                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 29-41 is/are pending in the application.
  - 4a) Of the above claim(s) 35-41 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 29-34 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

FEB - 6 2009

**COPY**

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of claims 29-34 in the reply filed on 8/13/07 is acknowledged. The traversal is on the ground(s) that the minor distinctions would not constitute a serious burden on the examiner. This is not found persuasive because Applicant may properly traverse a species requirement by going on the record and stating that the mutually exclusive characteristics are obvious variants and therefore if one specie is found the others would be obvious in view of the prior art. Applicant has not done so- therefore the mutually exclusive characteristics are considered patentably distinct and the search would be burdensome.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 29-324 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuo et al (US 20040016995 A1).

Kuo teaches the following claimed limitations as cited below:

FEB - 6 2009

29. (New) An electronic device having mounted thereon a microelectromechanical system (MEMS) element comprising a micromachine component and an electronic component for operation of said micromachine component formed on a substrate of said MEMS element, in which:

a lid having wiring patterns is bonded to the substrate of said MEMS element covering an active surface of said substrate (Fig.5 (480/450)),

an operating space for said micromachine component is defined by said substrate and said lid (where element 315 is located), electrodes of said MEMS element (350) and wiring patterns of said lid (430/460/410) are electrically connected at a bonded part of said substrate and said lid (510), and

a sealing portion is provided between said MEMS element and said lid surrounding an outside of said bonded part [0101].

30. (New) The electronic device as set forth in claim 29, in which said bonded part is an ultrasonic bonded part of said substrate and said lid [0088].

31. (New) The electronic device as set forth in claim 29, in which said substrate and/or said lid further have a cavity at the side of said operating space Fig.5- outside sealing solder ball has cavity between itself and 510).

32. (New) The electronic device as set forth in claim 29, in which said sealing portion comprises a continuous ultrasonic bonded part formed in contact with an outer periphery of an operating space side of said substrate and said lid without interruption (Fig.5).

33. (New) The electronic device as set forth in claim 29, in which said substrate and/or said lid further comprise conductor-filled vias formed passing through said substrate and/or said lid in a thickness direction (Fig.5).

34. (New) The electronic device as set forth in claim 29, in which said sealing portion comprises a sealing resin [0101].

***Response to Arguments***

Applicant's arguments with respect to the above claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

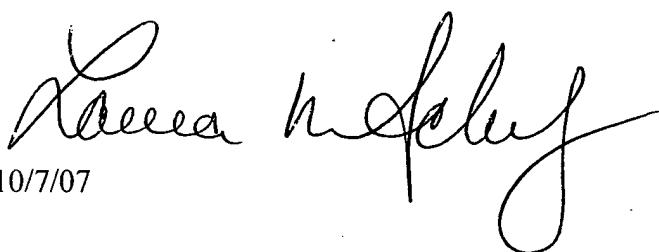
**COPY**

Page 5

Application/Control Number: 10/706,912

Art Unit: 2813

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



10/7/07

Laura M Schillinger  
Primary Examiner  
Art Unit 2813

FEB - 6 2009

<b>Notice of References Cited</b>		Application/Control No.	Applicant(s)/Patent Under Reexamination HIGASHI, MITSUTOSHI	
		Examiner Laura M. Schillinger	Art Unit 2813	Page 1 of 2

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,335,224 B1	01-2002	Peterson et al.	438/114
*	B	US-6,384,473 B1	05-2002	Peterson et al.	257/680
*	C	US-6,443,179 B1	09-2002	Benavides et al.	137/454.2
*	D	US-6,500,760 B1	12-2002	Peterson et al.	438/684
*	E	US-6,489,670 B1	12-2002	Peterson et al.	257/686
*	F	US-6,495,895 B1	12-2002	Peterson et al.	257/434
*	G	US-6,531,341 B1	03-2003	Peterson et al.	438/123
*	H	US-6,538,312 B1	03-2003	Peterson et al.	257/680
*	I	US-6,548,895 B1	04-2003	Benavides et al.	257/712
*	J	US-2003/0230798 A1	12-2003	Lin et al.	257/704
*	K	US-6,661,084 B1	12-2003	Peterson et al.	257/680
*	L	US-6,674,159 B1	01-2004	Peterson et al.	257/680
*	M	US-2004/0016995 A1	01-2004	Kuo et al.	257/678

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P				0300, 1138	CPT
	Q					
	R				12. 1/2	
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Notice of References Cited</b>	Application/Control No. 10/706,912	Applicant(s)/Patent Under Reexamination HIGASHI, MITSUTOSHI
	Examiner Laura M. Schillinger	Art Unit 2813

**COPY**

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,809,413 B1	10-2004	Peterson et al.	257/680
*	B	US-6,821,819 B1	11-2004	Benavides et al.	438/122
*	C	US-6,844,623 B1	01-2005	Peterson et al.	257/723
*	D	US-6,858,943 B1	02-2005	Peterson et al.	257/784
*	E	US-2005/0046016 A1	03-2005	Gilleo, Ken	257/713
*	F	US-2005/0167795 A1	08-2005	Higashi, Mitsutoshi	257/678
*	G	US-6,953,985 B2	10-2005	Lin et al.	257/659
*	H	US-6,956,283 B1	10-2005	Peterson, Kenneth A.	257/680
I	US-			<i>COPIES OF REFERENCES ORDERED</i>	
J	US-			<i>0300.1138 RPF</i>	
K	US-			<i>p. 2/2</i>	
L	US-				
M	US-				

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**FEB - 6 2009**